

## ABSTRACT

A NHRP/MPOA (Next Hop Resolution Protocol/Multi-Protocol Over ATM (Asynchronous Transfer Mode)) system for automatically collecting, by using NHRP Extensions, the IP addresses of MPOA servers via which a Resolution Request is sequentially transferred is disclosed. The system includes an input unit or data inputting means and an output unit implemented by a display or a printer. A route search commanding unit analyzes a command received from the input unit or produces an address from a received packet. A receipt unit receives a Resolution Request from another MPS server or another MPC client. A packet handling unit analyzes the content of a received packet and executes necessary processing. A transmission unit sends a Resolution Request to another MPS server or another MPC client. A memory stores a routing table on a computer (router), network interface information, and information relating to a computer (router) on which the MPS is mounted. A route displaying method is also disclosed.